

Date: Wed, 19 May 93 04:30:30 PDT
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #604
To: Info-Hams

Info-Hams Digest Wed, 19 May 93 Volume 93 : Issue 604

Today's Topics:

ARRL Bulletin 55 ARLB055
ARRL internet address??? [answer]
Don't get ripped off by a G5RV
MININEC
packet connections for HT HTX202?
Question about the antenna
Ramsey SCA Kit and pro-2004?
Some comments about the G5RV

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Wed, 19 May 1993 04:03:59 GMT
From: dog.ee.lbl.gov!overload.lbl.gov!agate!news.ucdavis.edu!othello.ucdavis.edu!
ez006683@network.UCSD.EDU
Subject: ARRL Bulletin 55 ARLB055
To: info-hams@ucsd.edu

jfw@ksr.com (John F. Woods) writes:
: bulletin@n8emr.cmhnet.org (Automatic packet bulletin poster) writes:
: >An administrator must enter into a written agreement with the FCC
: >and public notices will be issued listing the administrators. To be
: >an administrator, the organization must exist for the purpose of
: >furthering the amateur service. Its membership must include at
: >least one percent of the amateur operators licensed by the FCC,
: :
: So, out of curiosity, how many organizations qualify? That's, what, 5000

: members? I assume there's more than one organization with that many members,
: so this probably isn't a sneaky way of making the ARRL the only special
: callsign administrator.

I can't believe you'd make such an accusation!!! It's not sneaky it's
obvious :-)

Dan

--

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*-----*
* Daniel D. Todd      Packet: KC6UUD@WA6RDH.#nocal.ca.usa      *
*                    Internet: DDTODD@ucdavis.edu              *
*                    Snail Mail: 1750 Hanover #102              *
*                    Davis CA 95616                            *
*-----*
*      I do not speak for the University of California....    *
*      and it sure as hell doesn't speak for me!!            *
*-----*
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Date: 19 May 93 09:02:31 GMT
From: amdahl!amdahl!ikluft@uunet.uu.net
Subject: ARRL internet address??? [answer]
To: info-hams@ucsd.edu

murphyed1@woods.ulowell.edu writes:

>Does the ARRL have an internet address??? Is it FTP able?>???

Yes they are on the Internet. The domain is arrl.org. No, you can't
directly connect to it because their network provider dynamically assigns
addresses from a pool when they connect. (I assume it's a SLIP or PPP
phone line from the description they gave me.)

They can do e-mail. They also have a large e-mail information server
(info@arrl.org) which can send you all kinds of useful information.

This is all described in the Frequently-Asked Questions (FAQ) articles.
The relevant parts are shown below.

--excerpt from Ham Radio FAQ-----

Rec.radio.amateur.misc Frequently Asked Questions

Part 2 - Amateur Radio Organizations, Services, and Information Sources

[...]

** Where can I find Ham Radio information with a computer?

[...]

* The ARRL e-mail server

ARRL is the American Radio Relay League, representing and promoting Amateur Radio in the USA. They have established an automated file server which responds to information requests via electronic mail. To use the server, send mail to info@arrl.org with any number of one-line commands in your message. Valid commands are as follows:

help	sends more detailed instructions about the e-mail server
index	sends a list of the files currently available
send file	sends a file (replace "file" with the file's name)
	several files are referenced by name in parts of this FAQ
quit	ends command processing - use it if a signature will be appended to your message

The server program will respond to the commands, each in a separate message. Among many other informative files, a current copy of the FAQ (updated monthly) can be obtained from the ARRL e-mail server.

[...]

** Can I send ARRL or W5YI electronic mail?

Several ARRL HQ staffers can be contacted via the net. Their e-mail addresses are available from the ARRL e-mail file server in the file called "email". See above for more information on the ARRL e-mail server.

ARRL requests that you include your postal address (the slow kind) in case they need to send you nonelectronic material in answer to your request.

W5YI, a large VEC, can be reached at the following address:
Fred Maia, W5YI 3511297@mcimail.com

--end of excerpt-----
--

Ian Klufft KD6EUI PP-ASEL Amdahl Corporation, Open Systems Development
iklufft@uts.amdahl.com Santa Clara, CA
[disclaimer: any opinions expressed are mine only... not those of my employer]

Date: Wed, 19 May 1993 09:23:11 GMT
From: pa.dec.com!nntpd2.cxo.dec.com!nuts2u.enet.dec.com!little@decwrl.dec.com
Subject: Don't get ripped off by a G5RV
To: info-hams@ucsd.edu

lapin@casbah.acns.nwu.edu (Gregory Lapin) writes:

>Has anyone else noticed that everyone gets 59 reports from DX stations?

Sure, don't you believe you're 59 after having to repeat your call sign 10 times to get it copied correctly? ;-) Of course, maybe that dipole in my attic and my 100 watt TS-820S really light up the airwaves.

73,
Todd
N9MWB

Date: 19 May 1993 07:53:08 GMT
From: olivea!inews!ilx018.intel.com!ilx049!dbraun@uunet.uu.net
Subject: MININEC
To: info-hams@ucsd.edu

I ftp'ed myself a copy of MININEC3 (The antenna analysis program) for PCs. Is there a version of this that runs on Unix? The program is written in BASIC (ugh), but I don't know if it was originally in FORTRAN, or if someone has since translated it to FORTRAN or some other language.

Any pointers to a Unix version, or comments on this program in general, would be greatly appreciated.

Doug Braun (N10WU)
Email: dbraun@iil.intel.com
Intel Mail: IDC1-41
iNet: 8-435-5069 Long Distance: 011-972-4-355069
Fax: 8-435-5999 Long Distance: 011-972-4-355999
Snail Mail: US: Other:
 PO Box 311 Intel Israel, Ltd.
 Mendham, NJ 07945 IDC1-41
 Matam Scientific Center
 Haifa, Israel 31015

"There is no human problem which could not be solved if people would simply do as I advise." -- Gore Vidal

Date: Mon, 17 May 1993 13:06:07 GMT
From: usc!howland.reston.ans.net!ux1.cso.uiuc.edu!uwm.edu!msuinfo!uchinews!att-out!cbnews1!dara@network.UCSD.EDU
Subject: packet connections for HT HTX202?
To: info-hams@ucsd.edu

I want to use a Radio Shack HTX 202 on packet and I need info on the tnc connections. Do I use a .1 ufd in parallel with a 2.2 K resistor (like Yaesu)? I tried to use my ICOM HT connector (.1 in parallel with 3.9K) and the RS HT did not key up.

Also, How does one change the calling channel memory? I can write data into any memory except the calling memory.

Respond to me via e-mail please, I'm 5 days behind reading news!
tnx Shel dara@physics.att.com

Date: Wed, 19 May 1993 04:42:54 GMT
From: swrinde!emory!athena!aisun3.ai.uga.edu!mcovingt@network.UCSD.EDU
Subject: Question about the antenna
To: info-hams@ucsd.edu

In article <127108@netnews.upenn.edu> wong@a.chem.upenn.edu (Weichyun Wong) writes:
>I have a magnet mount antenna base and two steel whips. The whips are both
>160cm long. I would like to use one for 11m (CB) and the other for 10m.
>The question is how should I adjust the length for each of the whip
>that will optimize the transmission?

There is probably not going to be a discernible difference in the first place. Make the 10m one about 90% the length of the 11m one, and tune for best SWR, if you want to be really picky.

--
:- Michael A. Covington, Associate Research Scientist : *****
:- Artificial Intelligence Programs mcovingt@ai.uga.edu : *****
:- The University of Georgia phone 706 542-0358 : * * *
:- Athens, Georgia 30602-7415 U.S.A. amateur radio N4TMI : ** *** ** <><

Date: Wed, 19 May 1993 04:48:52 GMT
From: usc!howland.reston.ans.net!darwin.sura.net!emory!athena!aisun3.ai.uga.edu!mcovingt@network.UCSD.EDU
Subject: Ramsey SCA Kit and pro-2004?
To: info-hams@ucsd.edu

In article <MBRAMWEL.39.737648736@novell.business.uwo.ca>
MBRAMWEL@novell.business.uwo.ca (Mark_Bramwell) writes:
>Last night I put together the Ramsey SCA tuner kit.

>
>Using a scope, I can see the proper signals on the tuner kit.
>My problem is, I am not sure where to hook this up inside a pro-2004 scanner.
>Has anyone tried this on a scanner, or another receiver?

Does the Pro-2004 get the FM broadcast band?

There is no reason to expect an SCA adapter to work on narrowband FM signals...
in fact there is every reason to assume a subcarrier is not present,
because there isn't the bandwidth for it.

Or am I missing something?

--
:- Michael A. Covington, Associate Research Scientist : *****
:- Artificial Intelligence Programs mcovingt@ai.uga.edu : *****
:- The University of Georgia phone 706 542-0358 : * * *
:- Athens, Georgia 30602-7415 U.S.A. amateur radio N4TMI : ** *** ** <><

Date: Tue, 18 May 93 19:39:00 PDT
From: destroyer!cs.ubc.ca!mala.bc.ca!oneb!ham!emd@uunet.uu.net
Subject: Some comments about the G5RV
To: info-hams@ucsd.edu

Re: G5RV Antennae feeds.

After reading some of the discussion regarding Louis Varney,
G5RV's antenna design, I thought I'd make a few general comments,
based on some articles of his I have read.

The original G5RV was designed by Louis Varney, G5RV as long ago
as 1946. It was expected that an antenna tuner would be used
between the 80 ohm coaxial feedline (or 72 ohm twin-lead) and the
radio.

The G5RV was not designed to be a half wave dipole on it's lowest
operating frequency (usually 3.5 Mhz) but instead a 1 1/2 wave
centre fed doublet on 14.15 Mhz. The full length of the G5RV
antenna top is 102 ft, made from two equal 51 ft lengths.

Instead of simply bringing down a tuned line or ribbon feeder,
G5RV arranged there should be a 34 ft matching section of open
wire feeder, which had connected to its lower end a length of
either 75 ohm twin lead or 80 ohm coaxial cable.

(If 300 ohm twin lead was used for the matching section, it should be cut to 28 ft for the solid variety and 30 ft 7 in for the slotted version, to account for the different velocity factors.)

Unfortunately, the match to the coaxial or twin feeder at its junction with the the lower end of the matching section is only good on 14 Mhz and 24 Mhz. If 50 ohm coax is used, the VSWR on these bands will rise to 1.8:1.

In an article in 1984, Varney described in some detail the different loads presented to a 75 ohm feed line (either coaxial or twin) where it joined with the matching section. Here's a summary:

- 3.5 Mhz reactive load
- 7.0 Mhz reactive load
- 10.0 Mhz reactive load
- 14.0 Mhz resistive load, approx 90 ohms
- 18.0 Mhz high-impedance load, slightly reactive
- 21.0 Mhz high-impedance load, resistive
- 24.0 Mhz resistive load approx 90/100 ohms
- 29.0 Mhz high-impedance load, slightly reactive

Date: (null)

From: (null)

Towards the end of the description of his antenna, G5RV mentions that the most efficient feeder to use is the open-wire variety, all the way down from the centre of the antenna to the equipment, with a suitable tuner for matching. He added that by using 84 ft of open wire feeder, the system would permit parallel tuning of the tuner on all bands.

If coaxial feeder is used, its weight will pull its centre down considerably, and may alter somewhat the expected radiation patterns.

So as you can see, the feed systems have varied considerably, with the only real constants being the 102 ft length and the half-wave matching section. If you've got the room and a way to bring it in, open-wire feed line is the way to go!

Some of this information came from an article published in our local FM bulletin, and the rest from the excellent RSGB book "Practical Wire Antennas" by John D Heys G3BDQ, which I highly

recommend - especially for the non-engineers among us.

73, Bob Smits, VE7EMD

Robert Smits
VE7EMD
Ladysmith B.C.
e-mail: emd@ham.almanac.bc.ca

There is **no** idiotproof filter.
Idiots are proof against anything!
- Richard Chycoski, VE7CVS

Date: Wed, 19 May 1993 04:47:41 GMT
From: usc!howland.reston.ans.net!darwin.sura.net!emory!athena!aisun3.ai.uga.edu!
mcovingt@network.UCSD.EDU
To: info-hams@ucsd.edu

References <1993May13.162900.117@muvm6.wvnet.edu>,
<SBROWN.93May17060843@charon.dseg.ti.com>, <eesnyder.737647522@beagle>
Subject : Re: Why do they DO that?

Why enable out-of-band transmit?

(1) To work into a transverter (i.e., change the frequency after it comes out of the HT, typically into a microwave band or something exotic like that).

(1.5) To use the HT as a signal generator for testing purposes.
(E.g., work into a dummy load to test public service receivers.)

(2) Sometimes the ham is a fireman or policeman and would like the ability to transmit on the fire or police frequency in an emergency. NOT LEGAL except in bona fide emergencies, because ham equipment is not type accepted for use in other radio services. Still, the reasoning is, "I own this radio, and I may need to use it that way, so I should enable it."

(3) Sometimes the ham is not a fireman or policeman, but nonetheless figures that in a sufficiently serious emergency, he might benefit from being able to transmit on a fire or police frequency.

But mostly it's the Urge to Tinker.

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:- Michael A. Covington, Associate Research Scientist      :      *****
:- Artificial Intelligence Programs      mcovingt@ai.uga.edu :      *****
:- The University of Georgia            phone 706 542-0358 :      *  *  *
:- Athens, Georgia 30602-7415 U.S.A.    amateur radio N4TMI :      ** *** **  <><
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Date: Wed, 19 May 1993 05:39:26 GMT
From: swrinde!gatech!kd4nc!ke4zv!gary@network.UCSD.EDU
To: info-hams@ucsd.edu

References <1993May18.131516.20373@ultb.isc.rit.edu>,
<1993May18.155448.3756@nntpd2.cxo.dec.com>,
<1993May18.205335.14139@newsgate.sps.mot.com>
Reply-To : gary@ke4zv.UUCP (Gary Coffman)
Subject : Re: What is circular polarization?

In article <1993May18.205335.14139@newsgate.sps.mot.com> smith@sauron.sps.mot.com
(Trevor Smith) writes:

>Todd, N9MWB asks:

>

>>The question I have is how do TV stations produce horizontal polarization
>>when their antennas look like verticals?

>

>The TV transmitting antennas I've seen up close are merely long lengths of
>pipe some 18" diameter closed on the top.They have slots cut at strategic
>positions and as they are horizontal slots hence the horizontal polarisation.

>

>The pipe bolts directly onto the waveguide from the TX.Obviously there is some
>relationship between size of slot,position of slot and the frequency in use.

>

>All pretty agricultural really but the net effect is just a big stack of
>dipoles.

>

>Now what I want to know is why they do'nt fill up with water when it rains....

The antenna is an Alford slot. RCA called their stacked array of Alford slots "traveling wave" antennas because of the method they used to feed them. The slots are not horizontal, they are vertical. A vertical slot has the same polarization as a horizontal wire. The slot dimensions are a half wave at the frequency of use. The feed is done by tabs near the center of each slot that is coupled to the center conductor inside the pipe. The stacking spacing is the same as for conventional wire elements. They don't fill with water for two reasons, first there are plastic slot covers, and second there are drain holes at the bottom. Our old RCA had a gain toward the horizon of 13.42 db.

For circular polarization, Jampro and Harris use crossed elements. The Jampro uses Vee elements while the Harris uses L shaped elements. Phasing harnesses feed them such that they generate circular polarization. They are stacked around the support pole so that there are either 3 or 5 major lobes pointing around the clock in the horizontal plane. The feeds are adjusted so that these lobes merge into a nearly constant gain horizontal pattern. These "bays" are then stacked vertically to give the required total antenna gain. Our channel 11 Harris has a measured horizontal variation

of only 0.3 db and a total gain toward the horizon of 11.14 db.

The FCC only cares about the amount of power a station radiates in the horizontal plane, in the case of channel 11 that's 316 kw. By going to circular polarization, we can put an equal amount of power in the vertical plane for a total ERP of 632 kw. Circular polarization doesn't suffer the cross polarization losses of horizontal antennas when received on rabbit ears type set top antennas. So we put a much stronger signal into such sets. On the other hand, since many potential reflectors out in the world are vertically polarized, light poles, water towers, tall buildings, etc, we get more strong reflections now than we did with horizontal polarization. *If* the viewer had a circularly polarized antenna, these ghosts would be suppressed. But since they don't, it isn't such a hot idea. We're pushing more real kilowatts up the pipe, and the viewers are getting more signal, but now it's coming from more directions. We've filled in some previously shadowed areas via reflection, but we've degraded many previously ghost free areas. It's not a clear gain.

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244				

End of Info-Hams Digest V93 #604
